AIR QUALITY

Safeguarding the air we breathe is one of our most important environmental objectives, and communities serious about improving air quality should focus on projects that improve traffic flow and relieve congestion. Our nation's air quality has improved significantly over the past 30 years and will continue to improve largely because of a combination of cleaner cars and improvements in fuel technology. In contrast, programs encouraging citizens to reduce travel in their personal vehicles have had a minimal impact on air quality.

Air Quality

Background

The nation's air quality continues to improve, largely a result of the continued reduction in emissions from motor vehicles because of the ongoing improvements in vehicle and fuel technology, according to an analysis of the U.S. Environmental Protection Agency's (EPA) annual air quality trends report (1998). This reduction in overall highway vehicle emissions has occurred even while national levels of highway travel continue to increase. For example, highway travel *increased* by 131 percent during the last three decades, but tailpipe emissions of smog-causing volatile organic compounds (VOCs) *decreased* by 60 percent.

The level of emissions from individual vehicles depends on various factors, including the maintenance of the vehicle, driver behavior, and traffic conditions. Cars that are well maintained have lower levels of emissions. Vehicles also have lower levels of emissions at speeds between 15 and 60 miles per hour.

Vehicles that experience quick accelerations and variances in speed emit more pollutants. Therefore, traffic congestion can cause increased emissions because it results in slow-moving traffic, inefficient stop and go travel, and longer engine running times.

Projects that improve traffic flow and relieve traffic congestion improve air quality.

The Myth

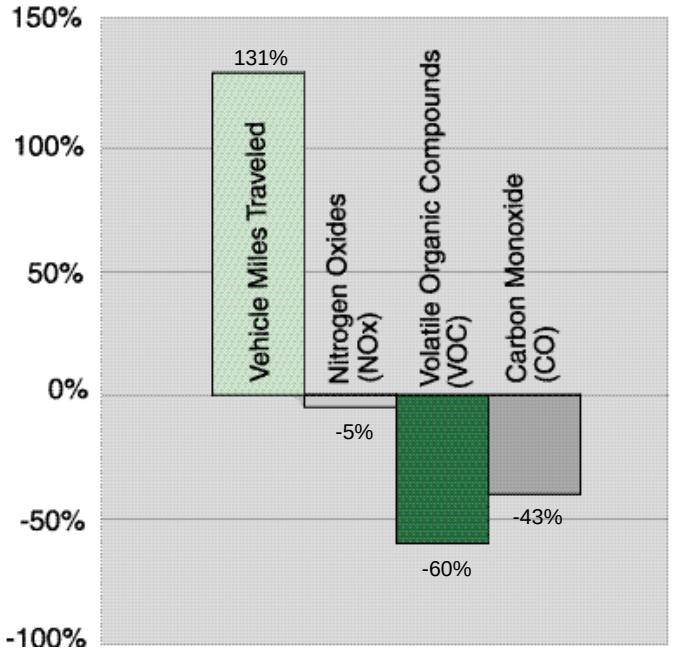
Meeting the nation's air quality goals will require that Americans reduce their level of private vehicle travel.

The Facts

The reduction in overall vehicle emissions has occurred at the same time highway travel has increased.

The most critical emissions from cars and trucks are VOCs and nitrogen oxides (NOx). These two compounds react with sunlight to form ground-level ozone, which is the primary constituent of smog .

Auto Emissions Decreased While Highway Travel Increased Dramatically (1970–1997)



Source: Federal Highway Administration and Environmental Protection Agency

Between 1970 and 1997, overall emissions from all U.S. highway vehicles declined significantly. According to EPA (1998):

- Volatile organic compounds decreased by 60 percent.
- Nitrogen oxides fell by 5 percent.
- Carbon monoxide decreased by 43 percent.
- Lead has been virtually eliminated.

These decreases have occurred despite continued significant increases in overall highway travel in the U.S. In fact, between 1970 and 1997, highway travel increased 131 percent, and the number of licensed drivers increased 64 percent nationally (U.S. Census Bureau 1990; U.S. Department of Transportation).

Our nation's air quality is getting much better largely because of a combination of cleaner cars and improvements in fuel technology.

The EPA predicts that motor vehicle emissions will continue to decrease through the year 2010 even as highway travel continues to increase.

The EPA (1999) forecasts that between 1997 and 2010 vehicle emissions of:

- Volatile organic compounds will decrease by 30 percent.
- Nitrogen oxide will decrease by 31 percent.
- Carbon monoxide will decrease by 20 percent.

A variety of means, including the following, can decrease emissions of pollutants from motor vehicles:

- Properly maintaining the pollution technology installed on the vehicle
- Combining errands because pollution reduction equipment operates more efficiently when the engine is warm
- Improving transportation infrastructure to reduce congestion and eliminate stop-and-go driving

Our Position

Improving air quality is an important challenge that we must address in the most practical way possible. We should reject policy approaches that suggest that transportation improvements and air quality improvements are mutually exclusive. In fact, transportation improvements to reduce congestion and smooth the flow of traffic should be important components of a comprehensive plan to improve air quality.

Our nation's air quality is getting much better largely because of a combination of cleaner cars and improvements in fuel technology. In contrast, programs encouraging citizens to reduce travel in their personal vehicles have not worked to improve air quality.

Endnotes

U.S. Census Bureau. (1990). *1990 Census of Population and Housing.* Washington, D.C.

U.S. Department of Transportation. *American Travel Survey*. Washington, D.C.

U.S. Environmental Protection Agency. (1998). *National Air Quality and Emissions Report*, Washington, D.C.